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ABSTRACT

The findings of an education training survey of human resource managers regarding the employment and training needs of New England companies and organizations are presented. Five sections present the following: an introduction (survey's purpose and a profile of the human resource managers surveyed); general education and training problems of New England organizations; qualities of employees important to meeting the future needs of New England organizations; continuing education in New England organizations (what groups are being served and how, who is doing the education and training, and where the education and training are taking place); and effectiveness of colleges and universities (effectiveness of colleges and universities in meeting continuing education needs of employers and preparing graduates for employment and greatest current contributions of colleges and universities and ways they might be more effective). Key findings include: (1) human resource managers feel the two serious education and training problems among their employees are lack of management and supervisory skills; (2) technical skills, adult illiteracy and basic math/problem solving skills of employees are not viewed as problems; (3) the major provider of continuing education for all employees is the internal staff of the organizations; and (4) most organizations rely heavily on on-the-job training and informal programs for providing education and training to their employees. An appendix offers a copy of the education and training survey. (SM)

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1987 Survey of Human Resource Managers

A New England Center for Continuing Education project being conducted by the New England Board of Higher Education with the support of the W.K. Kellogg Foundation

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EDUCATION AND TRAINING
FOR THE FUTURE OF NEW ENGLAND

A 1987 Survey of Human Resource Managers

Conducted by the New England Board of Higher Education
in cooperation with the New England Center for Continuing Education
Supported by the W.K. Kellogg Foundation

June 1987

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THE FUTURE OF NEW ENGLAND PROJECT

The Future of New England surveys were conducted as part of a joint research project of the New England Board of Higher Education (NEBHE) and the New England Center for Continuing Education (NEC). Funding was provided with a grant from the W. K. Kellogg Foundation, Battle Creek, Michigan.

Located at the University of New Hampshire, Durham, the NEC is a cooperative educational venture of the six New England land-grant universities, whose role it is to serve as a catalyst and convener of programs and conferences, addressing regional issues with regional resources.

The New England Board of Higher Education is a congressionally authorized regional, nonprofit agency that seeks to encourage cooperation and efficient use of resources among colleges and universities in New England. NEBHE's focus in research and publications programs has primarily been on higher education's impact on the region's economic development. Basic funding comes from the region's six states and New England-based corporations. Offices are at 45 Temple Place, Boston, Massachusetts. Phone (617)357-9620.

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EXECUTIVE SUMMARY

The 1987 education and training survey conducted by the New England Board of Higher Education provides insight into the concerns of human resource managers at New England companies and organizations regarding the education and training of employees.

Pressures from mounting international competition and the demands of rapid technological change have created ambiguities for the future of New England, and the nation in general, requiring a resourceful and flexible work force equipped to meet such challenges. In an economy that fluctuates among swiftly changing technologies, manpower is the region's chief natural resource. Education and training to maintain the quality of our human capital are critical to continued progress.

Four major topics are addressed by the education and training survey:

- general education and training problems facing New England companies and organizations,
- qualities of employees important to meeting the future needs of New England companies,
- continuing education of the region's work force, and
- the effectiveness of colleges and universities in meeting the education and training needs of New England companies.

The most important finding of this survey is the degree to which inadequate management skills of company employees is viewed as the most prevalent education and training problem. Not only is this inadequacy viewed as a problem by more human resource managers than any other problem, but also more varied continuing education programs, in terms of quantity, program type, program provider and location, are being devised for management than for any other employee group.

Key findings from the survey include the following:

- Human resource managers suggest that there are two serious education and training problems among their employees -- lack of management and supervisory skills.
- Technical skills, adult illiteracy and basic math/problem- solving skills of employees are not viewed as problems.
- Though adult illiteracy is not viewed as an education and training problem of employees at New England organizations, it has posed a problem in terms of new recruits for employment. Supervisory, management and critical thinking skills are also education and training problems facing human resource managers in screening job applicants.
- When asked to suggest qualities of employees that are important to meeting the future needs of New England's companies and organizations, human resource managers stress integrity and commitment. Also cited as important characteristics of employees are basic skills, organizational

skills, and adaptability/ flexibility.

- Most organizations rely very heavily upon **on-the-job training** and **informal programs** as the means for providing education and training for their employees; for factory/production and maintenance workers, these two means are used almost exclusively.

- The **major provider** of continuing education for all employees is the **internal staff of the organizations.**

- **Continuing education** is provided for **management** and **professional specialists** to a much greater degree than for any other employee group at New England organizations. Continuing education for **managers** usually takes place at **hotel and motel conference centers**, whereas **local colleges and universities** usually provide continuing education for **professional specialists. Private consultants** are heavily relied upon for the continuing education of management and also, but to a much lesser degree, for professional specialists. **Professional associations** and **public four-year colleges/universities** also provide substantial continuing education opportunities for these two groups.

- Human resource managers generally view **colleges and universities** as **effective** in both their efforts to **prepare graduates** for the work force and in their **continuing education** efforts.

- More than one fourth of the human resource managers suggest that the **provision of courses and seminars** is the **greatest contribution** made by colleges and universities in meeting the education, training and continuing education needs of New England organizations. Clearly, these managers value the involvement of colleges and universities in the process of lifelong learning for their employees. The provision of **technical skills**, as well as **basic skills**, is also indicated as the greatest contribution of colleges and universities by a substantial number of human resource managers.

- About one third of the human resource managers believe that colleges and universities would be **more effective** in terms of education, training and continuing education for New England's organizations if **more practical learning** took place on campus. Many suggested that this might effectively take place through more **field practicum** and **internship programs.**

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I. Introduction

A. Survey's Purpose

The following paper reports the findings of an education and training survey of human resource managers regarding the employment and training needs of New England companies and organizations.

This analysis is the second part of a major survey project on "The Future of New England," undertaken with a grant from the W.K. Kellogg Foundation of Battle Creek, Michigan. Both surveys were designed to assess issues that are critical to sustaining and expanding the foundation for New England's future prosperity.

The first survey was designed to assess the perceptions of business, government and higher education leaders about policy issues related to the region's collectively shared future. A series of questions related to policy concerns about the economy and the environment as well as general questions about education and training of the work force were addressed by members of these groups.

The second survey, of human resource managers, was designed to provide information about the current and future needs for employee training and education. The following findings are important to determining the requirements of business, industry and other organizations in meeting the challenge of international economic competition and rapid technological change that are affecting job requirements throughout the region.

The Future of New England was a joint research project conducted by the New England Board of Higher Education for the New England Center for Continuing Education (NEC). Located at the University of New Hampshire in Durham, the NEC is a cooperative educational venture of the six New England land-grant universities, whose role it is to serve as a catalyst and convener of programs and conferences, addressing regional issues with regional resources.

B. A Profile of the Human Resource Managers Surveyed

Individuals surveyed include high level human resource managers of New England companies and human resource managers who are members of the American Society of Personnel Administrators (ASPA). Members were selected by state and a sample was drawn in proportion to each state's population. More than 420 individuals were sent a survey questionnaire and 226 responded, providing for a 53 percent rate of return.

Human resource managers who answered the survey represent companies located in the following states:

State	Percent
Connecticut	20
Maine	15
Massachusetts	35
New Hampshire	8
Rhode Island	9
Vermont	5
Companies located in more than one state	8

Ninety percent of the respondents represent larger companies and organizations (those that employ more than 100 people), while about 10 percent represent small ones. Eighty-two percent work for companies that employ both full-and part-time personnel. Their companies represent the following types of organizations:

Industry	Percent
High-tech manufacturing	15
Basic manufacturing	21
Service industries (excluding finance)	14
Finance industries	19
Government	4
Private nonprofit organizations	9
Other	19

II. General Education and Training Problems

A. Education and Training Problems in the Current Work Force

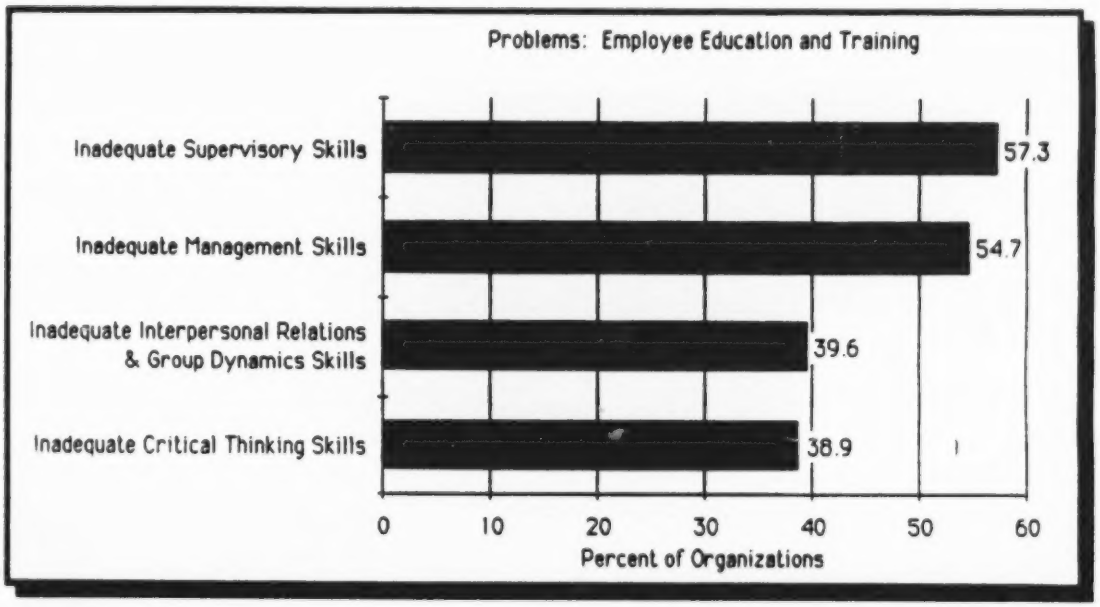
Human resource managers suggest that there are two serious education and training problems among employees of their companies -- employees lack adequate management skills and supervisory skills, as indicated by Figure 1.

The seriousness of these two issues is further emphasized by the number of leaders who view them as major problems. The lack of management skills is viewed as a major problem by about 19 percent, while lack of supervisory skills is viewed similarly by 16 percent.

Critical thinking and analytical skills that allow development of new ideas, programs, designs or products and interpersonal relations/group dynamics skills are also viewed as serious problems, but by a smaller number than those managers who point to the inadequacy of management and supervision.

Figure 1+

Employee Education and Training Problems at New England Organizations: Inadequate Skills

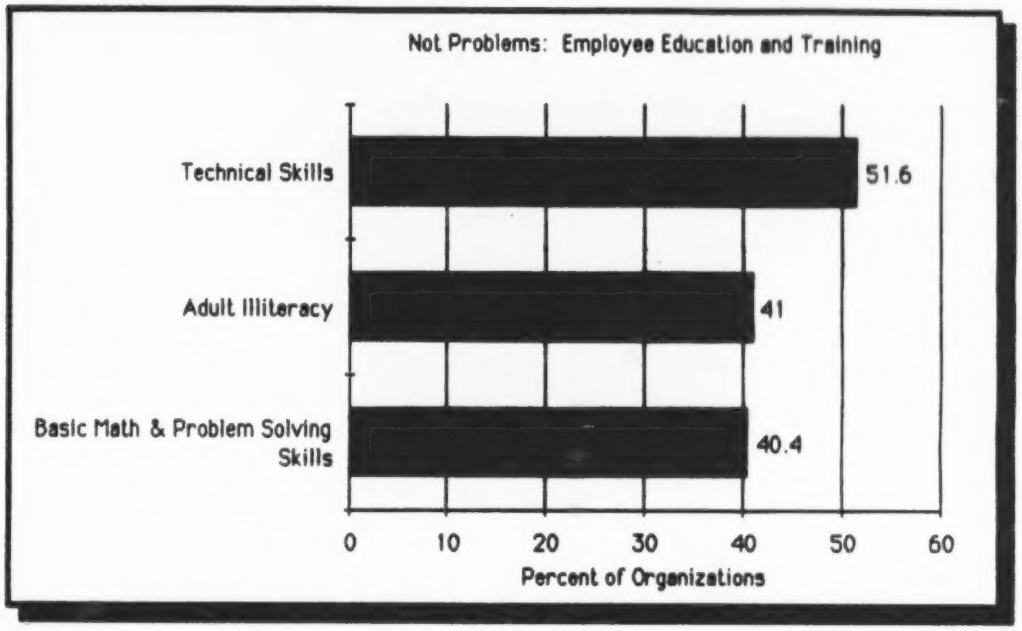


+Issues not selected by one third or more of the human resource officials are excluded from analysis.

On the other hand, the technical skills of employees are not viewed as a problem at New England companies and organizations by almost 52 percent of the human resource managers. Likewise, from the perspective of 40 percent, adult illiteracy and basic math/problem-solving skills are not problems presently facing New England organizations, as indicated in Figure 2.

Figure 2+

Issues That Are Not Employee Education and Training Problems in New England Organizations

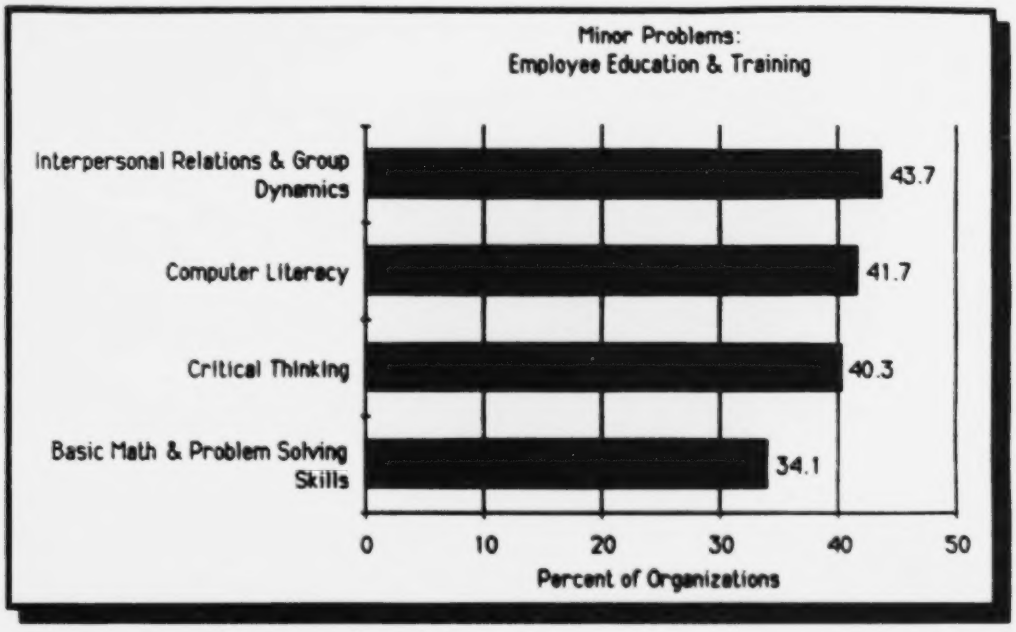


+Issues not selected by one third or more of the human resource officials are excluded from analysis.

From the perspective of more than one third of the human resource managers, minor education and training problems exist in five areas as indicated by Figure 3.

Figure 3+

Minor Employee Education and Training Problems at New England Organizations



+Issues not selected by one third or more of the human resource officials are excluded from analysis.

B. Education and Training Problems in Recruitment of New Employees

Though several issues are not seen as problems or even minor problems for current employees at New England organizations, several are considered problems by human resource managers when recruiting new employees.

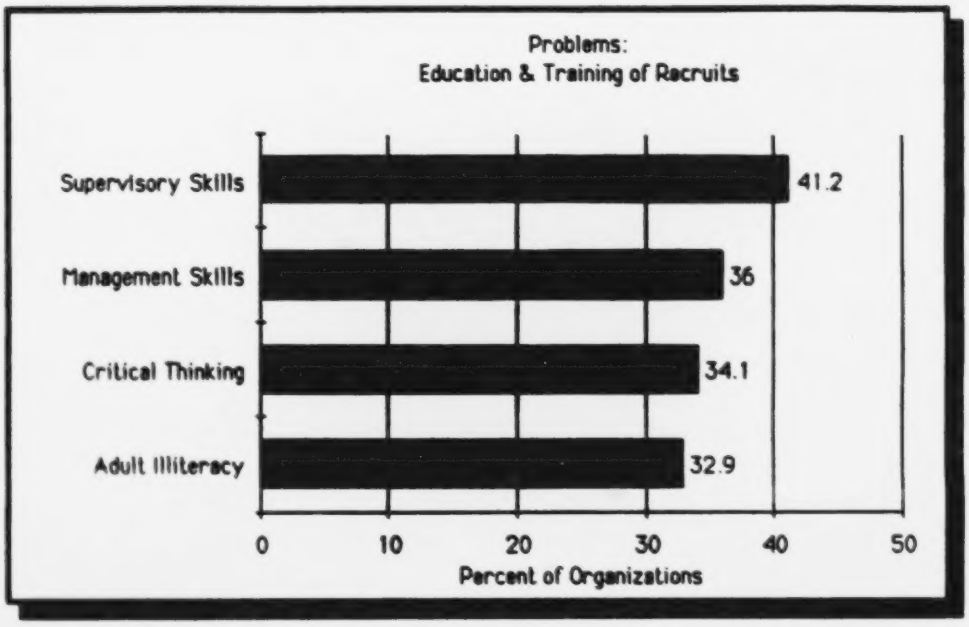
About 33 percent of the human resource managers indicate that they are faced with adult illiteracy problems when recruiting new employees, even though this is not a problem among their own employees. In addition, technical skills as well as basic math and problem-solving skills of job applicants pose a minor problem for human resource managers in their recruitment efforts, although they are not a problem among their own employees.

Inadequate management and supervisory skills are also viewed as problems in terms of employee recruits, although not by as large a number as those

indicating these are problems with current employees. Figures 4 through 6 outline problems, minor problems and issues that are not problems to human resource managers as they recruit new employees.

Figure 4+

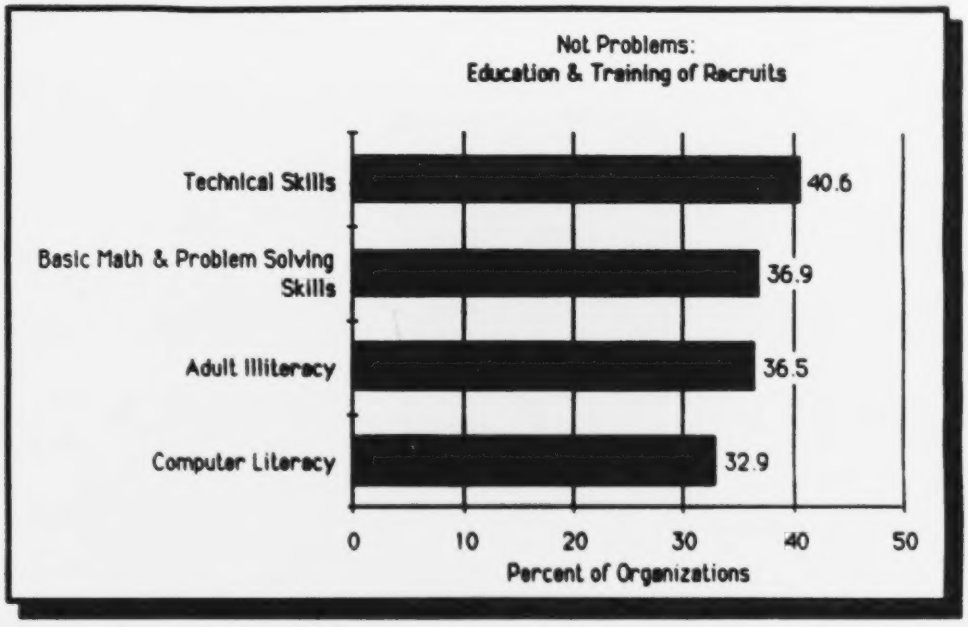
Education and Training Problems in Recruitment of New Employees at New England Organizations



+Issues not selected by one third or more of the human resource officials are excluded from analysis.

Figure 5+

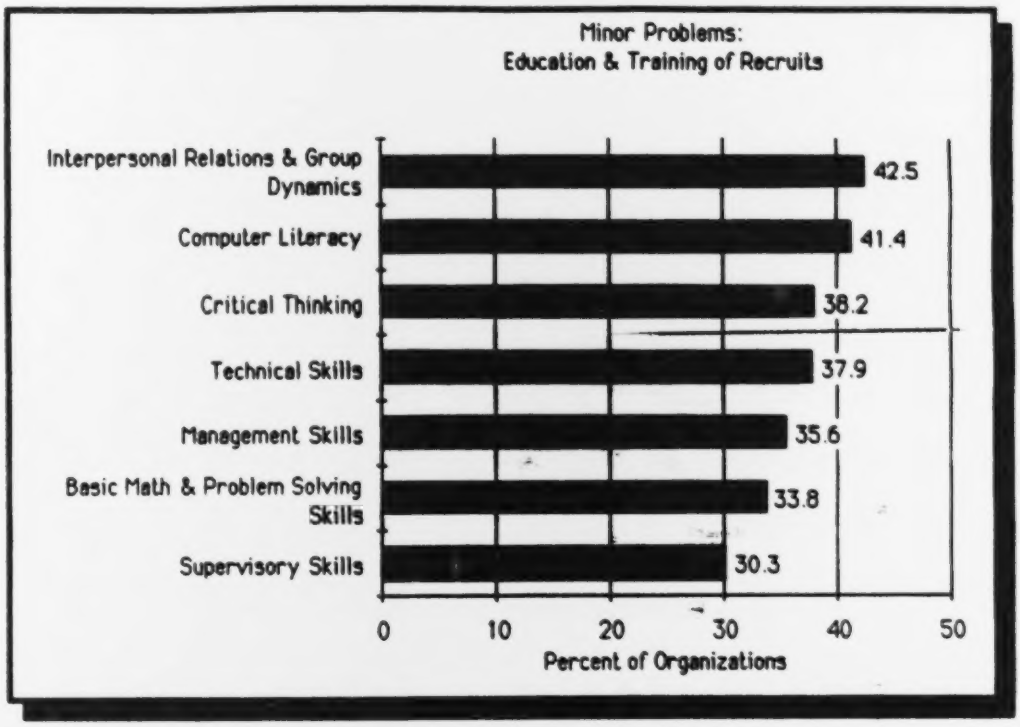
Issues That Are Not Education and Training Problems in Recruitment of New Employees at New England Organizations



+Issues not selected by one third or more of the human resource officials are excluded from analysis.

Figure 6+

Minor Education and Training Problems in Recruitment of New Employees at New England Organizations



+Issues not selected by one third or more of the human resource officials are excluded from analysis.

III. Qualities of Employees Important to Meeting the Future Needs of New England Organizations

When asked through an open-ended question to describe qualities in employees perceived to be important in meeting the future needs of their organizations, human resource managers (29 percent) cite characteristics of **personal integrity** and **commitment.** Specific words used to describe these qualities are "ethical," "reliable," "honest," "respectful," "dedicated," "dependable," "trustworthy" and "hardworking."

In light of this emphasis on integrity and commitment as critical for organizational success, it might be appropriate for colleges and universities to work more closely with human resource managers to provide business, management and organizational ethics seminars.

Almost 16 percent of human resource managers also cite the need for employees to possess **basic skills** including writing, communication and problem-solving skills.

The importance of **organizational skills** is noted by 15 percent of human resource managers. Specifically, employees should be able to "meet deadlines," "have a sense of urgency," "express an interest in overall goals," "be results-oriented" and "hold a vision for the future."

The fourth quality cited by more than 11 percent of human resource managers is **adaptability.** Some of the concepts used to describe this characteristic are "change agent," "ability to adapt to change," "challenged by change" and "ability to learn new techniques."

Five other qualities mentioned by a small number of human resource managers are: technical skills, by almost 10 percent; management skills, by 7 percent; computer skills, by 5 percent; solid educational background, by almost 4 percent; and specialized training by almost 1 percent.

IV. Continuing Education and Training in New England Organizations

A. What Groups Are Being Served and How?

All employee groups are receiving continuing education through on-the-job training. Likewise, this is the case with structured but informal programs for all groups with two exceptions. Factory/production workers and maintenance workers are only receiving on-the-job training as a means of continuing education.

Managers and administrators also have the opportunity to upgrade skills through intense formal continuing education courses as well as college credit courses in almost 56 percent of New England's organizations and through formal courses of longer duration in more than 35 percent of the organizations.

The other major methods used for delivering continuing education programs for professional specialists are intense formal courses of short duration in 48 percent of the cases and college credit courses in about 55 percent.

Thirty-five percent of the organizations provide for intense formal courses of short duration for sales and customer service employees and also provide for college credit courses for this group.

Organizations employing technicians are more apt to provide for college credit courses (37 percent) although an additional 29 percent offer intense formal short courses for this group as well.

Finally, secretaries and clerical staff are more often continuing their education through college credit courses in 40 percent of the organizations as well as through on-the-job training and informal programs.

In summary, there are five major findings about continuing education in New England.

- Most organizations rely very heavily upon on-the-job training and informal programs as the means for providing education and training for their employees.

- In addition to using on-the-job training and informal programs, most organizations rely upon intense formal short courses and college credit courses as alternatives for their employees. Substantially fewer organizations provide continuing education through formal courses of long duration which suggests that when lengthy courses are needed, college credit rather than non-credit courses are preferred.

- Managers and administrators, followed by professional specialists, are completing more varied programs than any other employee group.

- Factory and production workers as well as maintenance workers receive little more than on-the-job training in New England organizations.

- College credit courses are pursued by managers/administrators, professional specialists, sales and customer service employees, technicians and secretarial/clerical staff at more than 34 percent of New England's companies and organizations.

B. Who Is Doing the Education and Training?

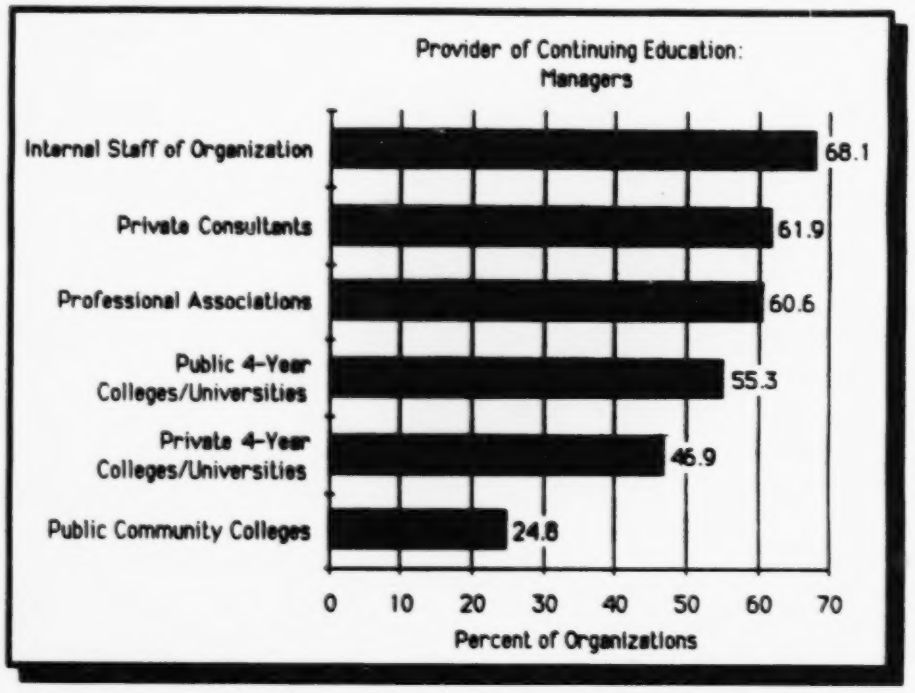
New England companies and organizations rely more on their internal resources on a regular basis than on any other organization for the provision of continuing education. Others providing continuing education for various employee groups on a regular basis include private consultants, professional associates, public four-year colleges and universities, private four-year colleges and universities and public community colleges. Public vocational technical schools as well as private two-year colleges provide continuing education programs for technicians and secretarial/clerical staff for a more limited number of organizations. Consistent with the fact that only on-the-job training programs are regularly offered as the system of delivery for factory/production and maintenance workers, only internal programs are generally offered for these two employee groups. However, public community colleges provide continuing education on a regular basis for maintenance workers in about 16 percent of New England organizations.

On the whole, local unions, proprietary schools, local school districts, community education centers and the government offer very few education and training programs in cooperation with New England companies and organizations.

More than any other employee type, administrators and managers are provided continuing education from the widest variety of organizations, as indicated by Figure 7.

Figure 7+

Organizations Offering Continuing Education Programs for Managers and Administrators on a Regular Basis

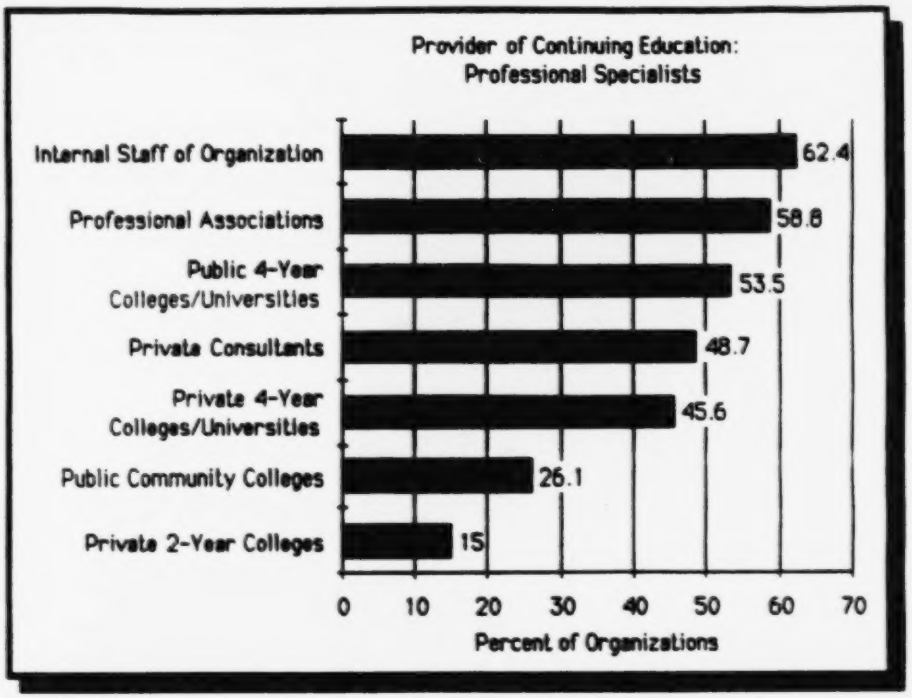


+Those organizational type mentioned by less than 15 percent of the human resource officials surveyed are excluded from analysis.

Most companies offer internal programs on a regular basis for professional specialists as well as for managers. However, private consultants are used far less for the continuing education of professional specialists. All the other types of organizations providing continuing education programs for managers are also used to a similar extent for professional specialists, as indicated by Figure 8.

Figure 8+

Organizations Offering Continuing Education Programs for Professional Specialists on a Regular Basis

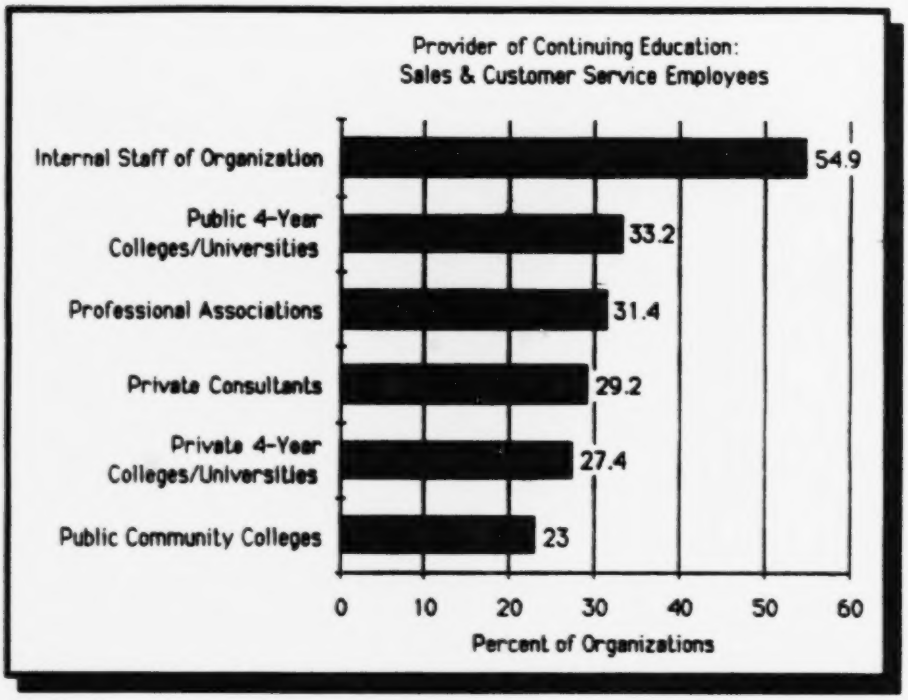


+Those organizational type mentioned by less than 15 percent of the human resource officials surveyed are excluded from analysis.

Far fewer companies provide for their other employees the wide variety of programs used by managers and professional specialists, although the same types are used as indicated by Figures 9 through 11.

Figure 9+

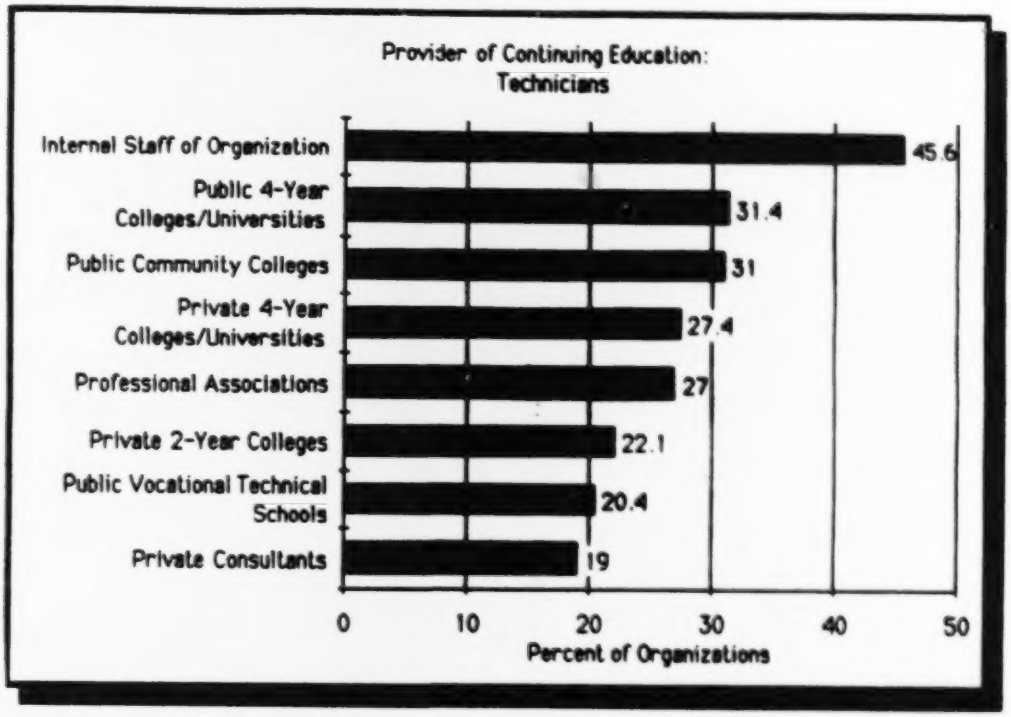
Organizations Offering Continuing Education Programs for Sales and Customer Service Employees on a Regular Basis



+Those organizational type mentioned by less than 15 percent of the human resource officials surveyed are excluded from the analysis.

Figure 10+

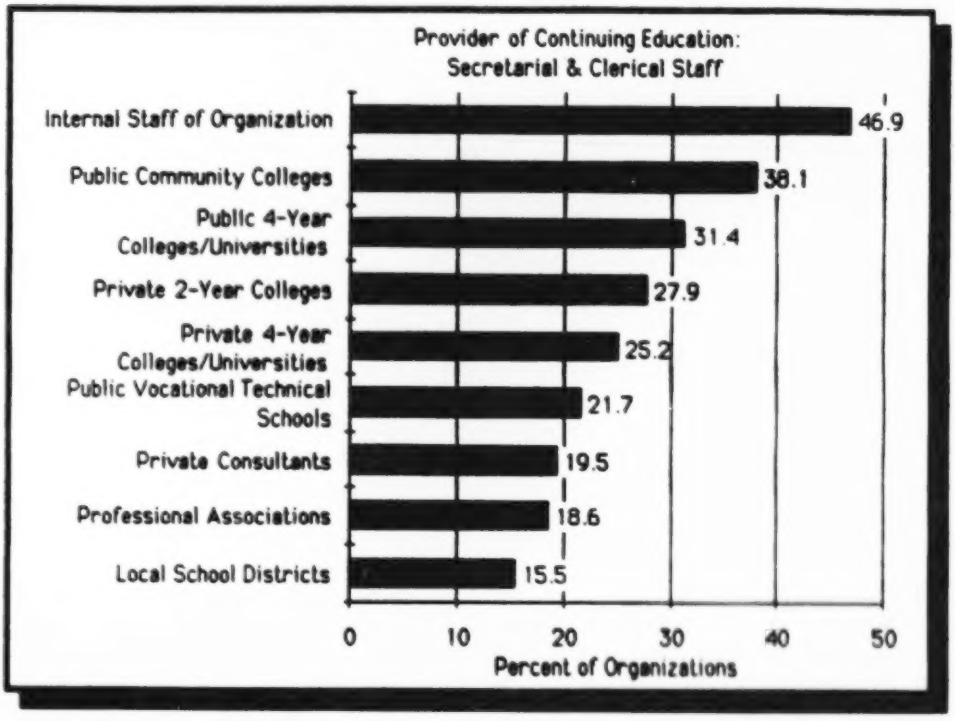
Organizations Offering Continuing Education Programs
for Technicians on a Regular Basis



+Those organizational type mentioned by less than 15 percent of the human resource officials surveyed are excluded from the analysis.

Figure 11+

Organizations Offering Continuing Education Programs for Secretarial and Clerical Staff on a Regular Basis



+Those organizational types mentioned by less than 15 percent of the human resource officials surveyed are excluded from the analysis.

C. Where is the Education and Training Taking Place?

More companies (about 64 percent) indicate that their continuing education programs for managers and administrators are conducted at hotel and motel conference centers more often than at other locations. However, continuing education for professional specialists is usually held at local college and universities (almost 37 percent). All other groups usually receive their continuing education and training at the work place: programs for sales and customer service employees, 47 percent; technicians, 46 percent; secretarial and clerical staff, 58 percent; and factory/production and maintenance workers, 30 and 39 percent of the cases, respectively.

Other locations used regularly for continuing education and training programs by New England companies are included in Table 1.

Table 1

Locations Utilized Regularly for Continuing Education and Training Programs by New England Companies and Organizations

	Managers/ Administrators	Profess. Special.	Sales/Customer Service Staff	Technicians	Secretarial/ Clerical Staff
Hotel & Motel Conference Ctrs.	63.7	53.5	35.8	*	16.8
Local Colleges/ Universities	55.8	56.6	32.7	38.1	37.6
The Work Place	51.3	51.3	47.3	46.0	57.5
Educational Conference Ctrs.	41.6	32.3	19.9	16.4	*

+Types of locations indicated as regularly used sites by less than 15 percent of the human resource managers are excluded from the analysis.

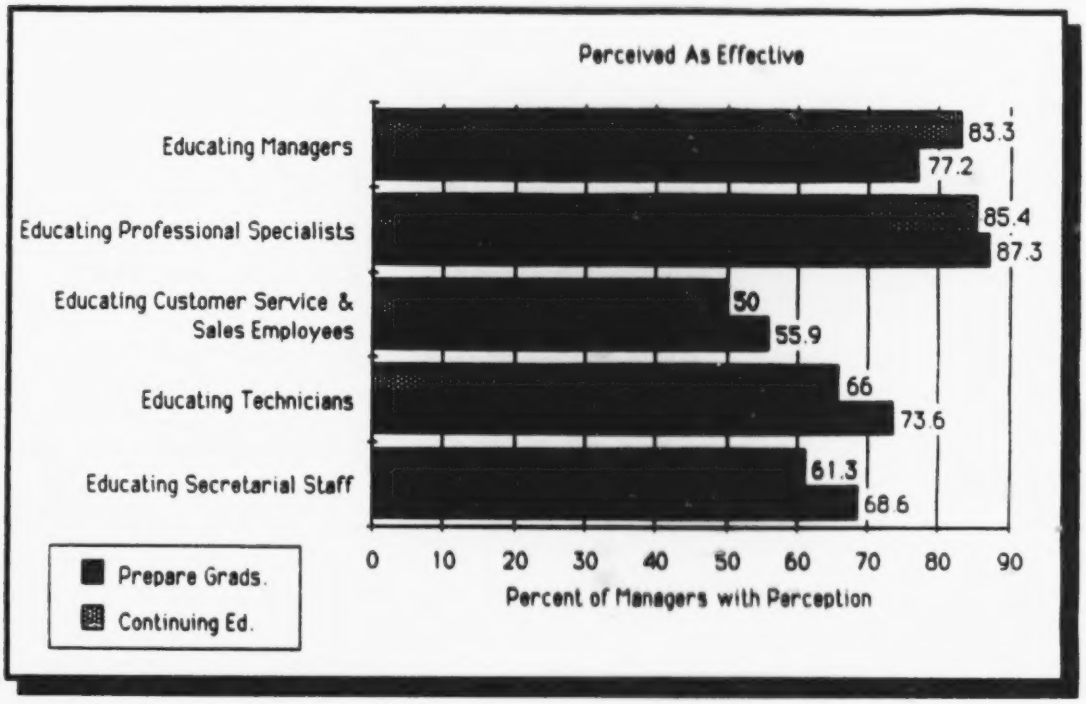
V. Effectiveness of Colleges and Universities

A. Effectiveness of Colleges and Universities In Meeting Continuing Education Needs of Employees and in Preparing Graduates for Employment

Overall, human resource managers view colleges and universities as effective both in terms of preparing their graduates for the work force and in meeting the continuing education and training needs of their present employees. Interestingly, human resource managers view colleges and universities as more effective in continuing education programs for managers than in preparing graduates for management positions. For the rest of the work force, however, colleges and universities are considered more effective in preparing graduates for those positions than in providing continuing education programs for current employees, as indicated by Figure 12.

Figure 12+

Effectiveness of Colleges and Universities in Education and Training of the Work Force



+The data representing perceptions of effectiveness were calculated by pooling those opinions about colleges and universities as **very effective** or **somewhat effective.**

There was, however, a rather small number of human resource managers who see colleges and universities as **very effective** in preparing their graduates for **management** positions. Whereas about 27 percent view **continuing education** programs for managers and administrators conducted by colleges and universities as **very effective,** less than 14 percent view colleges and universities as **very effective** in preparing their **graduates** for these same positions. This finding is consistent with the one previously reported that the management and supervisory skills of both current employees and new recruits at New England companies and organizations are considered education and training problems.

This analysis further suggests that more companies and organizations provide a greater variety of continuing education options, in terms of location, delivery system and program, for their managers and administrators than for any other employee group. Clearly, management programs are the continuing education priority of New England companies and organizations.

B. Greatest Current Contributions of Colleges and Universities and Ways They Might Be More Effective

When asked through an open-ended question to evaluate the effectiveness of colleges and universities in meeting the education, training and continuing education needs of employees, human resource managers (almost 27 percent) cite the provision of courses and seminars as the greatest current contribution made by these institutions. The provision of technical skills and the ability to teach basic skills are also noted as important contributions by 18 and 12 percent, respectively, of human resource managers.

Human resource managers list 11 other ways in which colleges and universities contribute to the education and training of employees: devising theoretical concepts (7 percent), serving as a resource to the community (almost 7 percent), providing specialized skills (almost 7 percent), enhancing computer skills of employees (6 percent), teaching interpersonal skills (4 percent), providing practical knowledge to employees (4 percent) and offering advanced degrees (almost 4 percent).

Two percent of human resource managers feel that colleges and universities have very little involvement in meeting the education, training and continuing education needs of their organization, while almost 1 percent indicates that their contribution is difficult to evaluate.

It is suggested that colleges and universities might be more effective if

they provided more practical knowledge (33 percent). Human resource managers seem to hold the opinion that more reality should be taught on campus. As a human resource manager of a high-tech firm in Massachusetts which employs 1,100 employees, puts it, "Theory is nice, but most students come out (of college) unable to deal with the working world, or (they) have such high expectations (that) they never know how to keep learning." Another human resource manager, at a service industry in Rhode Island employing 2,000, thinks that students "could spend some time away from the campus at the work sites to learn better how to merge the theory with the practice."

Undoubtedly, human resource managers would like to see more practical learning on campus, suggesting that this might take place more effectively through field practicums and internship programs.

This finding re-emphasizes an outcome of the leadership survey (Part 1 of this research project) -- more communication and collaboration between the region's college/university community and the region's business/organization community is necessary to secure the Future of New England.

Education and Training For the Future of New England

1987 Survey of Human Resource Managers

A New England Center for Continuing Education project being conducted by the New England Board of Higher Education with the support of the W.K. Kellogg Foundation

1. In general, what do you see as education and training problems among **employees in your organization?** (circle one for each category)

A major problem	A problem	A minor problem	Not a problem	I don't know	
1	2	3	4	5	Employees lack adequate reading, writing, and verbal communication skills (adult illiteracy)
1	2	3	4	5	Employees lack basic mathematical and problem-solving skills
1	2	3	4	5	Employees lack adequate computer literacy skills
1	2	3	4	5	Employees lack adequate management skills
1	2	3	4	5	Employees lack adequate technical skills
1	2	3	4	5	Employees lack adequate interpersonal relations and group dynamics skills
1	2	3	4	5	Employees lack adequate critical thinking and analytical skills that allow development of new ideas, programs, designs or products
1	2	3	4	5	Employees lack adequate supervisory skills
1	2	3	4	5	Other (please specify) _____

2. When **recruiting new** employees, what major education and training related problems do you find as you screen potential applicants? (circle one for each category)

A major problem	A problem	A minor problem	Not a problem	I don't know	
1	2	3	4	5	Applicants lack adequate reading, writing, and verbal communication skills (adult illiteracy)
1	2	3	4	5	Applicants lack basic mathematical and problem-solving skills
1	2	3	4	5	Applicants lack adequate computer literacy skills
1	2	3	4	5	Applicants lack adequate management skills
1	2	3	4	5	Applicants lack adequate technical skills
1	2	3	4	5	Applicants lack adequate interpersonal relations and group dynamics skills
1	2	3	4	5	Applicants lack adequate critical thinking and analytical skills that will allow development of new ideas, programs, designs or products
1	2	3	4	5	Applicants lack adequate supervisory skills
1	2	3	4	5	Other (please specify) _____

3. What groups within your organization are **currently** being served through education and training programs and by what method? (please circle only those that apply on a regular basis)

Managers/administrators
Professional specialists
Sale and customer service employees
Technicians
Secretarial/clerical staff
Factory/production workers
Maintenance workers
Other (please specify) _____

1	2	3	4	5	6	7	8	On-the-job training
1	2	3	4	5	6	7	8	Informal programs, such as seminars and conferences
1	2	3	4	5	6	7	8	Intense formal courses of short duration
1	2	3	4	5	6	7	8	Formal courses which meet once or twice weekly for a longer duration
1	2	3	4	5	6	7	8	Courses for which employees gain credit toward a college degree
1	2	3	4	5	6	7	8	Other (please specify) _____
1	2	3	4	5	6	7	8	This group of employees is not applicable to our organization

4. By whom are education and training programs provided for the following groups of employees in your organization? (please circle only those that apply on a **regular** basis)

Managers/administrators
Professional specialists
Sale and customer service employees
Technicians
Secretarial/clerical staff
Factory/production workers
Maintenance workers
Other (please specify) _____

1	2	3	4	5	6	7	8	Internal programs designed and taught by staff of our company/ organization
1	2	3	4	5	6	7	8	Private consultants who we hire
1	2	3	4	5	6	7	8	Local school districts
1	2	3	4	5	6	7	8	Community education centers
1	2	3	4	5	6	7	8	Public community and junior colleges
1	2	3	4	5	6	7	8	Public vocational-technical schools
1	2	3	4	5	6	7	8	Private 2-year community and junior colleges
1	2	3	4	5	6	7	8	Proprietary schools
1	2	3	4	5	6	7	8	Public 4-year colleges and universities
1	2	3	4	5	6	7	8	Private 4-year colleges and universities
1	2	3	4	5	6	7	8	Various professional associations
1	2	3	4	5	6	7	8	Local unions
1	2	3	4	5	6	7	8	Government-sponsored training programs
1	2	3	4	5	6	7	8	Other (please specify) _____
1	2	3	4	5	6	7	8	This group of employees is not applicable to our organization

5. In terms of location, **where** do your employees **generally** complete education and training programs? (please circle only those that apply on a **regular** basis)

Managers/administrators
Professional specialists
Sale and customer service employees
Technicians
Secretarial/clerical staff
Factory/production workers
Maintenance workers
Other (please specify) _____

1	2	3	4	5	6	7	8	Educational conference center
1	2	3	4	5	6	7	8	Hotel/motel or privately run conference centers
1	2	3	4	5	6	7	8	Local colleges/universities
1	2	3	4	5	6	7	8	The work place
1	2	3	4	5	6	7	8	Other (please specify) _____
1	2	3	4	5	6	7	8	This group of employees is not applicable to our organization

6. How effective are colleges and universities in assisting you to meet the continuing education and training needs of your **present** employees? (circle one for each category)

Very effective
Somewhat effective
Somewhat ineffective
Very inffective
This group of employees is not applicable to our organization

1	2	3	4	5	Managers/administrators
1	2	3	4	5	Professional specialists
1	2	3	4	5	Sales and customer service employees
1	2	3	4	5	Technicians
1	2	3	4	5	Secretarial/clerical staff
1	2	3	4	5	Factory/production workers
1	2	3	4	5	Maintenance workers
1	2	3	4	5	Other (please specify) _____

7. How effective are colleges and universities in preparing **their graduates** who are recruited by your company, to **meet** the needs of your organization? (circle one for each category)

Very effective
Somewhat effective
Somewhat ineffective
Very inffective
This group of employees is not applicable to our organization

1	2	3	4	5	Managers/administrators
1	2	3	4	5	Professional specialists
1	2	3	4	5	Sales and customer service employees
1	2	3	4	5	Technicians
1	2	3	4	5	Secretarial/clerical staff
1	2	3	4	5	Factory/production workers
1	2	3	4	5	Maintenance workers
1	2	3	4	5	Other (please specify) _____

8. In what state is your organization located?

1 Connecticut
2 Maine
3 Massachusetts
4 New Hampshire
5 Rhode Island
6 Vermont

9. Please provide the following information about your organization.

a. Total employment, 1986 in your organization
Number of full-time employees _____
Number of part-time employees _____

b. Please circle one of the following which most appropriately describes your organization.

1 High-tech manufacturing industry
2 Basic manufacturing industry
3 Service industry other than finance
4 Financial industry
5 Government organization
6 Private non-profit organization
7 Other (please specify) _____

10. What do you see as the greatest **current contribution** of colleges and universities in meeting education, training and continuing education needs of your organization?

11. What could colleges and universities do to be **more effective** in terms of education, training and continuing education for employees in your organization? Which area needs the most improvement?

12. Please describe qualities in employees that you perceive to be important in meeting the future needs of your organization?

Thank you for your time and cooperation in completing this questionnaire. If you have questions regarding this survey, please call Judith A. Beachler, Director of Research Services, New England Board of Higher Education, 617/357-9620.

This questionnaire is a self-mailer. Please fold and staple so that return address below appears on outside.